

Size:	72,516 acres
Mission:	Develop and test equipment and provide troop training
HRS Score:	31.45 (Michaelsville Landfill); placed on NPL in October 1989 53.57 (Edgewood Area); placed on NPL in February 1990
IAG Status:	IAG signed in March 1990
Contaminants:	VOCs, SVOCs, metals, PCBs, explosives, petroleum products, pesticides, radiologicals, CWM and their degradation products, UXO, and potential biological warfare material
Media Affected:	Groundwater, surface water, sediment, soil, and potential for air release
Funding to Date:	\$359.2 million
Estimated Cost to Completion (Completion Year):	\$708.0 million (FY2046)
Final Remedy in Place or Response Complete Date for All Sites:	FY2027



Edgewood and Aberdeen, Maryland

Restoration Background

Initial environmental studies from 1976 to 1983 identified numerous areas of contamination, including chemical munitions and manufacturing waste sites. RCRA Facility Assessments completed in FY90 identified 319 solid waste management units, which were combined into 13 study areas. There are 234 sites in the Edgewood Area (EA) and 20 sites in the Aberdeen Area (AA) that have potential or actual contamination. Remedial Investigations (RIs) have identified high levels of organic contaminants in most study areas. Lower levels of contamination have been detected in a few on-post tributaries to the Chesapeake Bay. Major actions completed before 1998 include 74 Removal Actions, 3 Remedial Actions (RAs), and 12 Records of Decision (RODs). Removal Actions completed since FY91, include removal of soil contaminated with polychlorinated biphenyls, petroleum hydrocarbons, trichloroethene, and DDT; removal of underground storage tanks (USTs); removal of unexploded ordnance (UXO) along the Edgewood Area boundary; closure of Nike missile silos, an adamsite vault, and pilot plant sumps; and cleanup of open dump sites.

In FY91, the Army and EPA signed an interim ROD for the Old O-Field Groundwater (treatment facility construction complete FY94) and a ROD for no further action for the White Phosphorous Underwater Munitions Burial Area (WPUMBA). In FY92, a ROD was signed for the closure/capping of the Michaelsville landfill (cap installation completed FY94.) In FY93, the installation installed carbon adsorption units on the Harford County Perryman water supply. In FY95, the Army and regulators signed a ROD for installation of a permeable infiltration unit (PIU) on the Old O-Field landfill. In FY95, the commander converted the technical review committee into a Restoration Advisory Board (RAB). In FY96 the Army and EPA signed RODs for the Building 103 Dump Site; the

Building 503 Burn Sites; the J-Field Soil Operable Unit (OU); the former Nike Site, Cluster 1 (groundwater, landfill, and sewer lines); and the Carroll Island OU A (disposal pits). In FY97, the Army completed RODs for three study sites and the investigation and final report on natural attenuation (NA) processes at the West Branch of Canal Creek (CC).

FY98 Restoration Progress

The installation received Nuclear Regulatory Commission release for two radiological Removal Action sites. Remediation of 30 USTs began in the CC Area. The Army completed the site safety submission and Environmental Engineering and Cost Analysis for Lauderick Creek Area and chemical weapons/munitions (CWM) Removal Action. The 95 percent design is complete for a prototype detonation test and destruction facility (PDTDF) for testing portable UXO/CWM containment and destruction technologies and to serve as a CWM destruction facility under the CWM treaty.

The installation did not complete the Feasibility Study (FS) and ROD for the Western Boundary Area because tests detected explosives in the groundwater. The five-year review for the WPUMBA was completed with no further work recommended. In the other Edgewood Area Study, RI/FS sampling identified volatile organic compound (VOC) contamination in groundwater and metals contamination in surface water samples. In the CC Study Area, the Building 503 Burn Site Soil (OU) remedy is in place. Installation of a cap on the 103 dump site continued but was delayed for relocation of personnel from a building on the site. The Focused FS (FFS), Proposed Plan, and public meeting were completed for the CC East Branch Groundwater OU. The NA study and FFS for the CC West Branch were completed.

In the J-Field Study Area, the RI and the Ecological and Human Health Risk Assessments were completed, and work began on the FS

for all OUs. The RA began for the J-Field Soil OU but will be significantly delayed because of encountered CWM. The J-Field hybrid poplar tree phytoremediation study continued with additional data collection and plantation expansion. Studies indicate that poplar trees are containing the groundwater plume during the growing season. At the Nike site, the installation capped a landfill and completed 90 percent of the groundwater treatment Remedial Design (RD). In the Lauderick Creek Area, the RI continued, two FFSs began, and an NA study concluded. In the Bush River Area, one FFS was completed and one FFS began. At Carroll Island, the Army completed the sitewide RI and 75 percent of the RA. At Graces Quarters, the final RI was completed, the FS continued, and NA study fieldwork was completed. In the Old O-Field Area, the Army completed installation of a PIU at the landfill (source area). The New O-Field FFS was delayed for evaluation of NA and newly discovered potential source areas. In the Westwood Area, the RI continued, and a risk assessment and an FS began. The Army continued implementing several other innovative technologies, including vegetation gas flux chambers for measuring off-gassing of VOCs, honeybee biomonitoring, and fish monitoring.

RAB activities included monthly meetings, site tours, two budget and prioritization meetings, radiological training, and document reviews.

Plan of Action

- Complete 30 Removal Actions in FY99
- Begin the Lauderick Creek subsurface UXO/CWM clearance and Removal Action in FY99
- Complete two FFSs, one FFS, four RODs, two RDs, and one RA in FY99

FY99 FUNDING BY PHASE AND RELATIVE RISK

